

CLAIMS

Now, therefore, the following is claimed:

- 1 1. A cartridge storage system comprising:
 - 2 a movable component;
 - 3 a removable nonvolatile memory component (RNMC); and
 - 4 logic configured to store operational data indicative of an operational history
 - 5 of the movable component in the RNMC.

- 1 2. The storage system as claimed in claim 1, wherein the movable component
2 comprises a data cartridge.

- 1 3. A storage system as claimed in claim 1, wherein the movable component
2 comprises a vial.

- 1 4. A storage system as claimed in claim 1, wherein the movable component
2 comprises a movable cartridge access device.

- 1 5. The storage system as claimed in claim 4, wherein the logic is configured to
2 receive a cartridge retrieval request, the logic further configured to instruct the movable
3 cartridge access device to retrieve a cartridge and to load the cartridge into a cartridge
4 receiver.

- 1 6. The storage system as claimed in claim 5, wherein the movable cartridge access
2 device is configured to communicate data indicative of mechanical events to the logic,
3 the logic further configured to receive and to store the data in the RNMC.

1 7. The system as claimed in claim 1, wherein the logic is further configured to save
2 system component identification numbers to the RNMC.

1 8. The storage system as claimed in claim 1, wherein the RNMC and the logic
2 reside on a single printed circuit board.

1 9. A cartridge storage system comprising:
2 a cartridge access device;
3 a removable nonvolatile memory component (RNMC); and
4 means for storing operational data associated with the cartridge access device
5 in the RNMC.

1 10. The system as claimed in claim 9, wherein the storing means and the RNMC
2 reside on a single printed circuit board.

1 11. The system as claimed in claim 10, wherein the cartridge is a data cartridge
2 and the movable cartridge access device is configured to load the data cartridge into a
3 cartridge drive.

1 12. The system as claimed in claim 10, wherein the cartridge is a vial and the
2 movable cartridge access device is configured to load the vial into a vial receiving
3 station.

1 13. A cartridge management method comprising:

2 automatically transporting a cartridge from one location within a cartridge
3 storage system to another location within the cartridge storage system; and
4 storing operational data related to the transporting to a removable nonvolatile
5 memory component (RNMC).

1 14. The method as claimed in claim 13, wherein the cartridge is a data cartridge.

1 15. The method as claimed in claim 14, further comprising loading the data
2 cartridge into a cartridge drive.

1 16. The method as claimed in claim 13, wherein the cartridge is a vial.

1 17. The method as claimed in claim 16, further comprising loading the vial into a
2 vial receiving station.

1 18. The method as claimed in claim 13, wherein the RNMC resides on a printed
2 circuit board (PCB), the method further comprising:
3 replacing the first PCB with a second PCB; and
4 moving the RNMC from the first PCB to the second PCB.

1 19. The method as claimed in claim 18, further comprising detecting a failure of a
2 component on the first PCB, wherein the replacing is performed in response to the
3 detecting.

1 20. A method for managing a cartridge storage system, comprising:

2 transporting of a cartridge from one location to another location within the
3 cartridge storage system;
4 controlling the transportation, via a first integrated manager, the first
5 integrated manager comprising a removable nonvolatile memory component
6 (RNMC);
7 storing data indicative of the controlling to the RNMC;
8 removing the RNMC from the first integrated manager;
9 attaching the RNMC to a second integrated manager; and
10 controlling operation of the cartridge storage system, via the second integrated
11 manager, based on data stored in the RNMC.

1 21. The method as claimed in claim 19, wherein the cartridge is a data cartridge.

1 22. The method as claimed in claim 20, wherein the cartridge is a vial.